

National Institute on Drug Abuse

Workforce Plan: FY 2002-2003

1. What skills are currently vital to the accomplishment of the agency's goals and objectives?

The NIDA Workforce Plan for Fiscal Years 2002 and 2003 has been developed based upon and is directly linked to the goals/objectives of our scientific programs.

Over the past several years, the converging forces of astounding advances in the sciences together with the increases in NIDA's research budget have afforded tremendous opportunities for advancing the national agenda of providing a science-based foundation for our national treatment and prevention practices and policies. With these advances have come exciting new research initiatives and changes in the nature of the research itself that place new demands on the scientific and technical expertise of the Institute. Addiction research has become more complex, more likely to be multi-institutional and multi-disciplinary, with a heavier emphasis on clinical oversight, data management, and the more effective use of enhancements in information and other technology. There has been an expansion not only of the questions being addressed, but a broadening of the pool of scientific talent and engagement of clinical personnel and organizations less scientifically-familiar with whom NIDA is now partnering. These changes require more specialized expertise by NIDA staff, enhanced input from and communication with the extramural community and the public, and more intensive oversight and monitoring of the research being supported.

We have described NIDA's major research directions in the four areas listed below. Each area is tied to the attached summary of our planned hires, with the number of staff needed indicated under each area. Whether a position is categorized as scientific or nonscientific, all positions in our plan are needed to effect the program goals. Whether the person conducts the research themselves, buys the supplies that enable that work, engages with external scientists to stimulate and direct their efforts, or awards the grants, writes the criteria to recruit the best scientists, or runs the automated systems to allow these actions, the effort is a team approach and requires staff with an increasingly sophisticated knowledge of the scientific programs and specialized needs.

Our hiring plan for FY02 includes 50 positions for our extramural program. Twenty of these are in anticipation of vacancies from retirement/attrition, and eighteen are new positions (and 12 summer). Our plan anticipates that we will shift some now-secretarial/support positions into scientific positions; and of the eighteen new positions, all but two are in the scientific/grants/contracts categories. The two nonscientific positions will require high levels of technical expertise and analytical skills to meet the upcoming needs. Likewise, for FY 03, NIDA's hiring plan again anticipates twenty vacancies from turnover and eleven new positions (and 12 summer). Of the eleven new positions, all are in the scientific/grants/contracts category. Within the intramural program, there is greater stability, although a large turnover of twenty staff is expected in IRTA positions in FY03. All positions, scientific and nonscientific, will be geared to the new skills needed for our programs.

Neurosciences, Behavioral Neurosciences, and Genetics -- Addiction at its core is a brain disease, and any attempt to understand its development, progression, and treatment must emphasize an understanding of the underlying mechanisms by which the brain's functioning influences the taking of drugs and is in turn changed by it. Towards this aim, planned activities include studies that increase our understanding of the mechanisms that underlie the actual transition from being a voluntary drug user to an addict; molecular and cellular neurobiology studies on the complex mechanisms involved in the acute effects of drug use and the development of addiction over time, including nicotine; the elucidation of genetic factors that make an individual more or less susceptible to addiction; basic behavioral and neurobehavioral studies on underlying mechanisms of reinforcement, motivation, and learning processes pre- and post-drug use; biologically-mediated factors underlying the importance of stress in the initiation of drug use and as a trigger for relapse; and mechanisms underlying the neurotoxic effects of drugs, especially methamphetamine.

In support of these efforts, in FY 02 NIDA plans to hire 25 positions and make 20 summer appointments. (Of these, 10 positions and 3 summer staff will be in the extramural program and 15 positions and 17 summer will be in the intramural.) In FY03, NIDA plans to hire 26 positions and 20 summer. (Of these, 10 positions and 3 summer will be in the extramural program and 16 positions and 17 summer will be in the intramural).

Clinical Trials and Treatment Advances -- NIDA has declared as its foremost goal for the new millennium the improvement of drug abuse treatment nationwide using science as the vehicle. A number of activities are involved in this goal, including the expansion of the national infrastructure that NIDA has put into place to test new treatments in real life settings (National Drug Abuse Treatment Clinical Trials Network), development of effective medications and behavioral therapies (particularly for cocaine and methamphetamine), an increased understanding of the organizational and financing impediments to drug treatment, and supporting research that best determines how to treat addicts in the criminal justice system.

In support of these efforts, in FY 02 NIDA plans to hire 16 positions and make 18 summer appointments. (Of these, 12 positions and 3 summer will be in the extramural program and 4 positions and 15 summer will be in the intramural.) In FY 03, NIDA plans to hire 19 positions and 18 summer. (Of these, 10 positions and 3 summer will be in the extramural program and 9 positions and 15 summer will be in the intramural.)

Prevention Research -- The development of effective tools for the prevention of drug abuse and its associated familial and societal problems is a high priority of the Institute. Efforts in this area will include studies to better determine the nature of constantly changing drug trends in local communities; methodological approaches for early identification of emerging drug problems and means to avert their transition to national epidemics; improved measures to assess drug abuse problems in minority/ethnic subpopulation groups; development of second generation prevention principles for more rapid and community-specific responses to emerging drug problems; the timely dissemination of science-based information to public, patient, and health care provider groups that is audience-targeted and culturally-specific; and the launch of a new initiative to develop a National Drug Abuse Prevention Trials System that will test proven research-based efforts in a wide variety of populations and in many different types of communities.

In support of these efforts, in FY 02 NIDA plans to hire 9 positions and make 3 summer appointments, all in the extramural program. In FY 03, NIDA plans to hire 6 positions and 3 summer, all in the extramural program.

Medical Consequences of Drug Use -- Drugs of abuse have complex interactions with numerous biological and physiological systems within the body, with a wide range of medical and health consequences. NIDA's scientific agenda therefore includes efforts to enhance fundamental knowledge of the medical consequences of drug use, including infectious diseases such as hepatitis C and HIV/AIDS, and their pathogenesis and progression; the co-morbidity of drug abuse with mental illnesses such as depression; cognitive studies on the effects of drug use on cognition, learning, and memory functioning and disorders; and the impact of drugs from prenatal exposure or when taken in adolescence on the developing brain.

In support of these efforts, in FY 02 NIDA plans to hire 7 positions and make 16 summer appointments. (Of these, 7 positions and 3 summer will be in the extramural and 13 summer will be in the intramural.) In FY 03, NIDA plans to hire 12 positions and make 16 summer appointments. (Of these, 5 positions and 3 summer will be in the extramural and 7 positions and 13 summer will be in the intramural.)

2. What changes are expected in the work of the agency? How will this affect the agency's human resources? What skills will no longer be required, and what new skills will the agency need in the next five years?

The growth in scientific knowledge over the past decade has been truly outstanding, changing both the way addiction science is conducted and how it must be managed. Research projects themselves tend to be more complex, involving a broader range of scientific disciplines in both the clinical and basic areas, and scientific and nonscientific staff who are at the same time more specialized in their knowledge but also more able to relate their own subspecialty to other relevant areas. Tremendous expansion and new work is occurring in the neurosciences of addiction, with new technologies in imaging and microarray techniques requiring expertise at the subcellular levels, in genomics and the new area of proteomics looking at the expression of genes as proteins, in linkages between anatomic and functional changes in the brain due to drug use, in understanding the relation between drug abuse and adolescent cognitive development, and in the number and types of pharmacologic and behavioral treatments ready for testing in large-scale clinical trials. NIDA's workforce plan was developed with these factors in mind. Recruitments in FY02 and FY03 will focus on the need for neuroscientists in several subspecialties, geneticists, clinicians, developmental behaviorists, and clinical trial specialists. The expansion in clinical and prevention research will require new staff skilled in the data management of clinical trials. Congressional interest and growing concern about methamphetamine and nicotine requires staff with special expertise in pharmacology and toxicology. Technological changes require that staff have expertise in development of brain ligands, use and management of genome data bases, and in complex neuroimaging studies. Higher research budgets will allow for more research projects to be conducted and managed, with a growing number of the extramural awards going to more complex, multi-site, clinical studies as well as to organizations less familiar with funding procedures and project management. This will result in the need for more technically diverse grants and contracts management staff to administer a larger and more diverse portfolio, and administrative staff knowledgeable of the programs and goals and how they translate into the need for scientific equipment or outstanding new

recruits with particular scientific expertise. Further, the nonscientific workforce will be called on for more technical work, including data and portfolio management and interactions with awardees and the public. Accordingly, they will need data management skills, organizational and analytic skills to deal with external customers for the collection of data such as during clinical trials, and the ability to provide information to the public on the nature and status of particular studies. In the same vein, we expect the NIH Enterprise IT systems to reduce the number of support staff needed, but require more sophisticated computer skills and analytic skills of the users.

3. What recruitment, training, and retention strategies are being implemented to help ensure that the agency has, and will continue to have, a high-quality, diverse workforce?

Because of the greater competition among potential employers and the increasing specialization needed in all areas, NIDA has implemented a variety of recruitment, training, and retention strategies to ensure that we have a high quality, diverse workforce. For example, listserves have been created to provide wide dissemination of vacancy announcements directly to scientists and to minority professional organizations. NIDA has also initiated a training program, science topics for the layman, to broaden the understanding of our nonscientific staff on the specifics of the scientific areas they are helping to implement. This has helped staff in developing complex contract statements of work or in developing announcements for recruiting new scientists in new areas such as geneticists. Telecommuting and other flexible workplace programs, which are currently being used at NIDA, will also be examined in light of the workforce plan to determine if they can be even more effective in terms of productivity and as recruitment incentives. Telecommuting may be most effective at the NIDA intramural program where there are significant space constraints, allowing scientists to write papers at home at times when their ongoing experiments permit.

4. How is the agency addressing expected skills imbalances due to attrition, including retirements over the next five years?

While developing NIDA's hiring plan, we factored in our retirement estimates based on the growing number of employees eligible each year, and attrition rates based on the last 5 years actual experience. Overall, we estimate that 18% of our staff will turnover each year. Although it will be spread across all categories, we project that most of the retirements/attrition will be among Ph.D.-level scientists. As each vacancy occurs, particularly among nonscientific staff, we will analyze it anew in terms of the latest information on our program initiatives and our streamlining efforts, GPRA, and new systems such as NBS to determine if a replacement is needed in that same area, or if the position can be converted to a scientific or nonsupervisory position. If a nonscientific position is hired, we will ensure that new hires are familiar with computer systems, have analytic capabilities applicable in several areas, and have the ability to develop new computer-based skills.

5. What challenges impeded the agency's ability to recruit and retain a high quality, diverse workforce?

Despite our various efforts to recruit and retain staff, there are challenges that we encounter frequently. For example, IT staff are hard to retain even though special pay rates have been approved up to the GS-12 level. When vacancies occur, due to the length of the recruitment

process and the specialized nature of the NIH/NIDA IT systems, it is very difficult to recruit IT staff. The Title 42 mechanism for scientists has helped our recruitment efforts for scientific positions. However, for two career families the lack of organized placement assistance for the second spouse has been problematic in several instances, and we have lost important recruits for this reason.

6. Where has the agency successfully delegated authority or restructured to reduce the number of layers that a programmatic action passes through before it reaches an authoritative decision point? Where can the agency improve its processes to reduce the number of layers that a programmatic action passes through before it reaches an authoritative decision point?

NIDA has successfully delegated authority in a number of areas which reduced the number of layers involved before a decision can be made. Examples include delegating the authority to sign certain technology transfer agreements to the Scientific Director which allows the science to proceed without unnecessary delays; delegating to Office/Division Directors the authority to approve performance awards providing quicker feedback to an employee for a job well done; and delegating certain purchasing authority to program staff and the use of purchase cards and intramall which have helped speed up the receipt of necessary scientific supplies. NIDA has also revised its website to make it more user friendly so customers (e.g., public, parents, treatment providers, drug abusers) can access factual scientific information directly without having to call and request a hard copy be mailed. To further bring decision making authority closer to the program level, we plan in the upcoming year to expand the use of generic position descriptions and redelegate classification authority to Office/Division Directors where feasible so as to speed up the hiring of new staff. In an effort to restructure to eliminate unnecessary layering, we will also be looking at each supervisory position to determine if it is needed and if the position responsibilities can be refocused to a front-line position that interacts with customers consistent with the President's 2002 budget directives. As a result, we expect that our supervisory positions can be reduced by approximately 15% over the next few years.

7. What barriers (statutory, administrative, physical, or cultural) has the agency identified to achieving workforce restructuring?

For our Intramural Research Program in Baltimore, HR planning has been done in recognition of facility constraints to meeting our research needs. After an extensive facilities analysis, a new building (to be shared with NIA) is scheduled to be occupied in 2005. However, in the interim we will need to lease, on a short-term basis, additional laboratory space that is separated from our current IRP laboratories, which is not optimal for the shared use of equipment or consolidation of/collaboration between program areas that the new facility will allow.

Buyouts and voluntary early retirements could help in our restructuring efforts if they are targeted and we can convert vacated positions into new positions with the scientific skills that will be needed for our new initiatives. As changes are made in NIH/NIDA IT systems, we will need to evaluate their impact on our workforce and buyouts would be a useful tool to have. Further, buyouts will be important as A-76 cost comparisons are done at NIH because there may be difficulty placing and retraining displaced employees.

NIDA Hiring Plans for FYs 2002/2003

	FY 2002	FY 2003	Total
INTRAMURAL			
Senior Investigators ¹	0	1	1
Investigators ¹	2	2	4
Other MD/PhDs, in FTE positions	1	0	1
Other MD/PhDs in non-FTE positions (IRTA, VF)	8	25	33
Other lab/clinical staff => GS-13	1	1	2
Other lab/clinical staff =< GS-12	3	2	5
Admin/support staff => GS-13	0	0	0
Admin/support staff =< GS-12	1	1	2
Infrastructure support => GS-13	0	0	0
Infrastructure support =< GS-12 ²	0	0	0
Summer and other temps not listed above (include summer IRTAs)	45	45	90
TOTAL INTRAMURAL	61	77	138
EXTRAMURAL			
HSAs/SRAs and other senior level science administrators => GS-13	28	22	50
Other science administration positions =< GS-12	2	3	5
Grants Management and R&D Contract Staff => GS-13 ³	2	2	4
Grants Management and R&D Contract Staff =< GS-12 ³	1	2	3
Administrative and support staff => GS-13	3	1	4
Administrative and support staff =< GS-12	2	1	3
Infrastructure support => GS-13			0
Infrastructure support =< GS-12 ²			0
Summer and other temps not listed above	12	12	24
TOTAL EXTRAMURAL	50	43	93
IC TOTAL	111	120	231
¹ Using OIR professional designations			
² Include all wage grade positions related to infrastructure in this group			
³ Includes 1101, 1102, 301 and 303 series where individual is engaged in these activities on a full-time basis.			